

WHAT IS CLAIMED IS:

1. A device for processing packets in a network,
comprising:

a receiver operable to receive a packet flow;

5 a detector operable to determine if the packet flow
includes a pause;

a processor operable to adjust fragmentation of
packets in the packet flow according to whether the
packet flow includes the pause.

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2. The device of Claim 1, wherein the processor
will not perform fragmentation of the packet flow in
response to the packet flow including the pause.

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3. The device of Claim 2, wherein the processor
will fragment those packets in the packet flow that
exceed a predetermined network size.

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3. The device of Claim 1, wherein the processor
performs fragmentation of the packet flow in response to
the packet flow not including the pause.

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4. The device of Claim 3, wherein the processor
fragments those packets of the packet flow that exceed a
predetermined local state size.

5. The device of Claim 4, wherein the predetermined
local state size is associated with a different packet
flow.

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6. The device of Claim 1, wherein the receiver receives a plurality of packet flows, the detector operable to determine if each of the packet flows includes a pause, the processor operable to adjust
5 fragmentation of each of the plurality of packet flows according to whether any of the packet flows includes the pause.

7. The device of Claim 6, wherein a first one of
10 the plurality of packet flows includes a relatively short pause, a second one of the plurality of packet flows includes a relatively long pause, the processor operable to perform fragmentation of the first and second ones of the packet flows according to characteristics associated
15 with the first one of the plurality of packet flows.

8. The device of Claim 7, wherein the processor is operable to perform fragmentation of the second one of the plurality of packet flows according to
20 characteristics associated with the second one of the plurality of packet flows in response to termination of the first one of the plurality of packet flows.

9. The device of Claim 1, wherein a packet of the
25 packet flow indicates whether the packet flow includes the pause.

10. The device of Claim 1, wherein the detector is operable to determine whether the packet flow includes
30 the pause in response to a receipt frequency of packets in the packet flow.

11. A method for processing packets in a network,
comprising:

receiving a packet flow;

determining if the packet flow includes a pause;

5 adjusting fragmentation of packets in the packet
flow according to whether the packet flow includes the
pause.

12. The method of Claim 11, further comprising:

10 performing fragmentation of packets in the packet
flow in response to the packet flow not including the
pause.

13. The method of Claim 12, further comprising:

15 fragmenting those packets in the packet flow
exceeding a predetermined size.

14. The method of Claim 11, wherein the
predetermined size is associated with a state
20 characteristic of the packet flow.

15. The method of Claim 13, wherein the
predetermined size is associated with a state
characteristic of a different packet flow.

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16. A system for processing packets in a network,
comprising:

means for receiving a packet flow;

5 means for determining if the packet flow includes a
pause;

means for adjusting fragmentation of packets in the
packet flow according to whether the packet flow includes
the pause.

10 17. The system of Claim 16, further comprising:

means for performing fragmentation of packets in the
packet flow in response to the packet flow not including
the pause.

15 18. The system of Claim 17, further comprising:

means for fragmenting those packets in the packet
flow exceeding a predetermined size.

19. The method of Claim 16, further comprising:

20 means for receiving a plurality of packet flows, a
first one of the plurality of packet flows associated
with a pause, a second one of the plurality of packet
flows associated with no pause or a pause shorter than
that of the first one of the plurality of packet flows;

25 means for fragmenting packets of the first and
second ones of the packet flows according to state
characteristics associated with the second one of the
plurality of packet flows.

30 20. The method of Claim 16, wherein the determining
means includes means for determining a receipt frequency
of packets in the packet flow.

21. A system for processing packets in a network,
comprising:

5 a sender operable to place information in packets of
a packet flow, the sender operable to provide an
indication as to whether the packet flow includes a
pause;

10 a linking device operable to receive the packet flow
from the sender, the linking device operable to adjust
fragmentation of packets in the packet flow according to
whether the packet flow includes the pause;

a receiver operable to receive the packet flow from
the linking device.

22. The system of Claim 21, wherein the sender is
15 operable to identify the pause in the information.

23. The system of Claim 22, wherein the sender is
operable to classify the pause identified in the
information.

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24. The system of Claim 23, wherein the pause is
classified according to whether one or more predefined
limits are exceeded.

25 25. The system of Claim 24, wherein the sender is
operable to adjust one or more bits of a packet in the
packet flow to indicate a presence and a classification
of the pause.

26. A computer readable medium including code for processing packets in a network, the code operable to:

receive a packet flow;

determine if the packet flow includes a pause;

5 adjust fragmentation of packets in the packet flow
according to whether the packet flow includes the pause.

27. The computer readable medium of Claim 26,
wherein the code is further operable to:

10 perform fragmentation of packets in the packet flow
in response to the packet flow not including the pause.

28. The computer readable medium of Claim 27,
wherein the code is further operable to:

15 fragment those packets in the packet flow exceeding
a predetermined size.

29. The computer readable medium of Claim 26,
wherein the predetermined size is associated with a state
20 characteristic of the packet flow.

30. The computer readable medium of Claim 26,
wherein the predetermined size is associated with a state
characteristic of a different packet flow.